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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,784

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Masahiro Kozakai

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REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

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NEW YORK, NY 10022-7650

EXAMINER

SMITH, LINDA B

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,784	Applicant(s) KOZAKAI ET AL.	
	Examiner LINDA B. SMITH	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4 is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

1. Amendment B, received on 4/23/09 has been entered into record. Claims 1 and 2 have been amended and Claims 5 and 6 have been added.
2. Claims 1-6 are now pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

4. Claims 3 and 4 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:
The prior art of record fails to teach or suggest in combination as claimed a manufacturing method for manufacturing the lens drive device which moves one half of the case body and the other half case body such that a spacer is sandwiched between and then removed. When the spacer is removed the gap between the regulating part and the lens-barrel holder is set.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amakasu et al. (JP 2004-304566 A and hereinafter Amakasu) in view of Yoshida et al. (US Patent No. 7,268,816 and hereinafter Yoshida).

8. As to claim 1, Amakasu discloses a movable lens body (**3 or 103**) provided with a lens (**0021,0024**);

a drive means for moving the movable lens body in an optical axis direction of the lens (**0021,0024,0029**); and

a fixing body (**102**) which movably supports the movable lens body in the optical axis direction, such that the lens body moves with respect to the fixing body in the optical axis direction (**0023,0029**);

wherein the movable lens body (**3 or 103**) is comprised of a lens-barrel provided with a lens and a lens-barrel holder which movably supports the lens-barrel with respect to the lens-barrel holder in the optical axis direction (**0017,0018**);

wherein the lens-barrel holder comprises a first magnetic means (**122**) as the drive means (**0023**);

wherein the fixing body (**102**) comprises a second magnetic means (**123**) as the drive means (**0025**) and an imaging element (**8**) where an image passing through the lens is formed (**0017**);

wherein the lens-barrel holder is formed in a cylindrical shape and a female screw part is formed on its inner periphery, and a male screw part is formed on an outer periphery of the lens-barrel and the male screw part is threadedly engaged with the female screw part and the lens-

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barrel is moved with respect to the lens-barrel holder in the optical axis direction by relatively turning the lens-barrel holder with respect to the lens-barrel (**0017,0024**); wherein the lens-barrel is relatively moved with respect to the lens-barrel holder in the optical axis direction through screw engagement so that a focus between the lens provided in the lens-barrel and the imaging element is adjusted while positional relationship between the first magnetic means of the lens-barrel holder and the second magnetic means of the fixing body is maintained (**0021,0024,0029**); and

wherein the movable lens body (**103**) is moved, with respect to the fixing body (**102**) in the optical axis direction, by a magnetic attractive force or a magnetic repulsive force between the first magnetic means and the second magnetic means (**0017,0018,0023**).

Amakasu does not disclose:

regulating part which regulates a moving range in the optical axis direction of the lens-barrel holder [claim 1].

wherein the fixing body includes a first divided case body and a second divided case body which are integrated with each other; wherein the first divided case body is formed with a first abutting part with which the lens-barrel holder is capable of abutting; and wherein the second divided case body is formed with a second abutting part with which the lens-barrel holder is capable of abutting; and wherein the regulating part includes the first abutting part and the second abutting part [claim 6].

Yoshida discloses a camera unit having:

regulating part (**32,43,102,114**) which regulates a moving range in the optical axis direction of the lens-barrel holder [claim 1](**abstract, col. 3, lines 18-23, col. 5, lines 18-20 and Figs. 1,5,8**)

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to provide a means to regulate/restrict the movement of the lens barrel within the movable range of lens barrel holder as well as to control the position of the lens barrel.

wherein the fixing body includes a first divided case body and a second divided case body which are integrated with each other [claim 6](**Fig. 16a and col. 9, lines 26-53**) to provide a fixing body that can be divided into two cases for easier access to the movable lens body and lens-barrel holder;

wherein the first divided case body (**322a**) is formed with a first abutting part (**331a**) with which the lens-barrel holder is capable of abutting [claim 6] (**col. 9, lines 26-43**) to provide a first abutting part which limits the movably lens body in the first direction as well as protect the movable lens body from damage when moving toward the first divided case body; and

wherein the second divided case body (**322b**) is formed with a second abutting part (**332a**) with which the lens-barrel holder is capable of abutting [claim 6](**col. 7, lines 34-52 and col. 9, lines 26-52**) to provide a second abutting part which limits the movable lens body in the second direction in the movable range of the lens barrel holder which assist in the zooming operation; and

wherein the regulating part includes the first abutting part and the second abutting part [claim 6] (**col. 7, lines 34-52 and col. 9, lines 26-52**).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system of Amakasu with a regulating part as disclosed by Yoshida to provide a means to regulate/restrict the movement of the lens barrel within the movable range of lens barrel holder as well as to control the position of the lens barrel this will allow the focus or zooming operation to be more accurate since the movable lens body is not moving beyond the

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allowable range due to the first and second abutting parts. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was to attempt the above described modification with a reasonable expectation of success.

9. As to claim 2, Amakasu discloses wherein the movable lens body is moved between a normal photographing position and a macro-photography position (**0023,0029**).

10. As to claim 5, Amakasu discloses wherein the first magnetic means (**122**) and the second magnetic means (**123**) are a drive magnet and a drive coil respectively (**0023 and Fig. 3**).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINDA B. SMITH whose telephone number is (571)270-3827. The examiner can normally be reached on Monday through Friday 9:00AM-6:30PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Linda B Smith/
Examiner, Art Unit 2862

/Christopher E Mahoney/
Primary Examiner, Art Unit 2862